

WASTE TYPES BY DEPARTMENT/ACTIVITY

FOOD AND BEVERAGE**Cooking oils**

Cooking oils are either liquid (e.g. refined and unrefined vegetable oils) or solid (e.g. lard, dripping and hydrogenated vegetable oils). Disposal is often not covered by special requirements or regulations although legislation (for example in the UK) demands that all commercial hot food premises be fitted with a mechanism to trap or separate grease, oil and other substances that can block drains. Regular dosing with enzymes can be helpful in breaking down any fats that do find their way down sinks.

Oil and grease can pose a threat to vegetation and wildlife if allowed to enter water courses. Many countries provide a national oil collection network for caterers and restaurants. When cool, collect used cooking oil in a secure container, avoiding contamination with other liquids such as water. It can then be collected by a specialist company for cleaning and blending for use in animal feed, soap or cosmetics production and, increasingly, to make bio-fuels. Austria for example runs a scheme enabling kitchen fat to be collected and turned into bio diesel and biogas energy.

Fats and grease

See cooking oils.

Food waste

Treat the waste off restaurant plates as you would raw fish and meat waste (see below) or arrange for a local pig farmer to collect it (if national legislation permits this practice).

Raw fish and meat bones and trimmings from food preparation

Putrescible items should be bagged securely for collection and disposal by an authorised waste contractor. Check whether there is a commercial scheme in your area to collect food waste for processing into compost or biogas. Alternatively, consider purchasing an 'in vessel' composter which accelerates the composting of mixed food waste (including fish and meat). Such systems can cost less than GBP1 per week to operate and are suitable for hotels. Some establishments use commercial waste disposal units, but there are issues such as the additional energy, water and processing of sewage waste to consider.

Unused bread, pastries, sandwiches, salads etc.

Return to the supplier for recycling or safe disposal or contact your local environmental agency for advice.

Vegetable and fruit peelings, eggshells, used coffee grounds and tea bags

Dry lemon and orange peels for pot-pourri or candy them in sugar for use in baking. Soft fruits from fruit baskets can be used to make jam. Otherwise, all of these items can be composted for use in the hotel's gardens.

Aluminum cans and foil

To make one million tons of aluminium cans from virgin materials requires five million tons of bauxite ore and the energy equivalent of 32 million barrels of crude oil. Recycling them into new cans saves all the bauxite, more than 75 per cent of the energy and avoids approximately 75 per cent of the pollutants.^[4]

The aluminum industry has an established system of collection and reprocessing for used products and it is likely that recycling facilities already exist in your area. Your local authority should be able to advise.

Aluminium foil can be separated from steel cans with magnets, then shredded, delacquered and melted down to make various aluminium products, including cans. Foil that has been used for cooking and that is still relatively clean can also be recycled.

Corks

Natural cork bottle and jar stoppers can be recycled into insulation, tiles and pin boards among other products. Australia, Germany, Belgium and Switzerland have collection schemes. Check whether there is a local scheme on the internet. Even if not, it is worth collecting corks and giving them to staff, schools, or local organisations for making into notice boards or other recycled craft products.

Synthetic corks can be recycled into items such as shoe soles and containers and some countries, such as the UK, are beginning to set up recycling facilities.

[4] Source: Worldwatch Institute

Fire extinguishers

Return to the supplier for recycling or safe disposal or contact your local environmental agency for advice.

Fridges and freezers

Refrigeration equipment containing ozone-depleting CFCs or HCFCs is treated as hazardous waste in many countries and is covered by legislation such as the EU's Council Regulation No 2037/2000 on Ozone Depleting Substances (ODS). These substances need to be removed from the equipment before it is scrapped. Your supplier or local environmental authority will be able to advise on the appropriate collection scheme.

Glass

Glass-making is energy intensive – recycling 100 per cent glass cullet saves 20–30 per cent of the energy used to make glass from scratch. The glass used for bottles and jars, tableware and flat glass is soda lime glass, whereas crystal tableware is made of lead glass. Information about recycling facilities for used glass containers should be available from your local authority or the internet. Depending on the end use it may be necessary to sort your waste glass containers by colour prior to collection for recycling. Where there is a market for crushed glass, you should consider using a compactor to crush the glass into 'cullet' before collection. This saves space, cuts down on the number of vehicle collections required and can be quieter if noise is an issue at collection time.

Ensure that light bulbs, crystal drinking glasses, porcelain, ceramics, corks or metal and plastic bottle tops are not put in with glass bottles or jars for recycling as this will spoil the cullet.

Some suppliers operate a deposit refund system for the reuse of beverage bottles. This saves the raw materials and energy used to manufacture new bottles, but it depends upon the transport energy involved in collection and the detergents, water and chemicals required to meet hygiene requirements as to whether there is an overall environmental benefit.

Packaging waste e.g. polystyrene (styrofoam), wooden pallets and cardboard boxes

Work with your supplier to find ways to reduce packaging, reuse or change to reusable or recyclable packaging where possible.

Plastics

Plastics generally divide into two groups: thermoplastics which can be remoulded many times when heated and thermosets which can only be used once. Many plastic bottles and other items display a symbol to show whether they can be recycled.

You should either be able to return unwanted plastic packaging to your supplier or arrange for it to be collected for recycling.

Soft-drink bottles, milk and water jugs and laundry-product bottles, all made of various resins, are sorted and converted into resin pellets. The pellets are then usually melted and moulded into a desired shape. Some of the products made from used resins include drainpipes, plastic bags, non-food containers, lids on non-food containers, insulation, flower pots, clothes pegs, automobile bumpers, rope, carpet backing and household appliances.

Shredded polyethylene terephthalate (PET) bottles can be processed to make fiberfill for quilts, pillows, sleeping bags and coat linings.

Steel cans or 'tins'

Because of the protective tin coating on the steel, these are de-tinned and fed into steel-making furnaces. The steel can be used to make new cans and almost any kind of consumer product, from refrigerators to cars. Tin cans make up only a small proportion of recycled steel – the main sources include old cars, appliances, farm equipment and industrial scrap.

White goods

These include appliances such as washing machines, fridges, freezers and cookers. In many cases your supplier will collect and arrange disposal and if not they should advise what route you should take. Some organisations accept donations of such goods for refurbishment and selling on or for donation to charities or individuals.

CONTINUED OVER

GUEST ROOMS AND GENERAL HOUSEKEEPING

Towels, robes and linens

Reuse worn or damaged items for cleaning cloths and donate serviceable linens, robes and guest slippers to homeless shelters. Old hotel uniforms can be donated to the local theatre for costumes. Some hotels even turn worn bedcovers into mini blankets and pillows for the hotel's four legged guests!

Soaps, shampoos and other bathroom amenities

Donate to homeless charities, sell to a specialist company for making into candles and other products or switch to the use of dispensers and purchasing in bulk containers.

Cleaning chemicals

Store concentrated or diluted chemical wastes such as bleach temporarily in secure containers in a safe place prior to collection by the supplier or specialist contractor. Never pour them into drains. **SEE SECTION 8.4**

Pharmaceutical preparations and medication

Unfinished medication left behind by guests should be put in a secure cabinet prior to disposal. Some hotels have an arrangement with a charity to collect them for distribution to countries where drugs are not affordable.

Newspapers and magazines

Install segregated bins in guest rooms and fit housekeeping trolleys with separate bins for collecting recyclable paper and other waste.

Televisions and telephones

Several countries operate facilities for recycling waste electronic items and, in Europe for example, these are covered by the Waste Electrical and Electronic (WEEE) Directive which came into force in 2007. **SEE APPENDIX 3**

Batteries

Batteries are either:

- **single use** (such as alkaline manganese or zinc oxide batteries used in personal stereos, torches and clocks; and silver oxide, zinc air, lithium, alkaline or mercuric oxide batteries used for watches, cameras and calculators)
- **rechargeable nickel cadmium (NiCd)**, nickel metal hydride (NiMH), lithium-ion and other technologies which are used for mobile phones, video cameras and power tools.

Use rechargeable or mercury-free batteries wherever possible. However, because they contain heavy metals which can bioaccumulate in plant and animal matter with detrimental effect, collected nickel cadmium batteries are categorised as special waste and must be managed by a certified waste handler. It may be that your supplier will take them back but they must not be put in with general waste going to landfill. There are numerous schemes for collecting and recovering the contents of batteries, particularly NiCd batteries, such as **REBAT** set up by the **British Battery Manufacturers Association** in the UK.

DEPARTMENT/ACTIVITY

OFFICE

Office equipment (computers, printers, monitors etc.)

Part exchange or give back to supplier or donate or sell to local schools, start-up businesses or charities. Some countries operate national electronics recycling initiatives.

Toner cartridges

Contact your supplier or search the internet for information on companies that organise collection for recycling.

Paper and card

Check with the contractor which types of used paper and card they will collect. Fine paper can be cleaned, repulped and mixed with varying percentages of virgin pulp and then used in the manufacture of boxboard, tissues, printing and writing paper, newsprint and liner board.

Not all waste paper is recyclable – 'post it' notes, paper coasters, sticky labels etc should not be put in the recycling bin with newspapers and magazines. Some areas run cardboard recycling schemes whereby waste cardboard boxes are shredded for use as animal bedding and then composted.

Reduce use by printing on both sides of paper. Set printers to print out in smaller fonts and edit documents on screen where possible. Send faxes from personal computers rather than a printed copy. Cut up old stationery and make into notepads or give it to a local school.

Engine oils

Do not pour used automobile engine or other equipment oil in the containers for used cooking oils or down the drains. Oils should be collected by a specialist contractor for reprocessing.

Tyres

Tyres contain rubber, fabric and steel wire and beads. As scrap they are bulky, and create a potential fire hazard. Since they contain environmentally toxic substances the disposal of tyres is subject to strict controls in many countries. However, there are many ways in which tyres can be recycled, either by being 'crumbed' to make products such as surfacing for playgrounds or as fuel in high temperature kilns. Contact your local authority for guidance on disposal.

Equipment (lawn-mowers etc.)

Ask your supplier whether they will purchase or take back equipment for disposal or offer it to a local organisation such as the local old people's home, school etc.

Lighting

Although using longer-life, energy saving lamps (bulbs) reduces the number that need to be disposed of each year and saves energy, fluorescent tubes and compact fluorescent lamps (CFLs) contain mercury and should not be sent to landfill sites even though in some countries they are not classified as special waste. Some, such as Sweden and the UK, have introduced systems for recycling them into their constituent parts. Contact your local environmental or waste agency for advice. **SEE ALSO SECTION 8.5**

Paints, solvents etc.

Avoid use of solvent-based paints with a high Volatile Organic Compounds (VOC) content as there are now excellent water-based alternatives. Consult your supplier or local authority about the most appropriate methods of disposal and never pour unwanted products into drains. Use small containers for cleaning brushes with solvents. Paint thinners can be reused once the paint in suspension has settled. The reusable thinner can be drawn off the top into a clean container and reused several times before it ceases to be effective.

Asbestos

This constitutes hazardous waste and there are strict regulations in many countries governing how it is handled. Seek specialist advice from a reputable company for removal and disposal. **SEE SECTION 8.7**

GARAGE AND GARDEN

Trimmings from hedge pruning

These can be added to your composter (in small batches) unless they are very woody, in which case they can be chipped for use on paths or flower beds.

Garden furniture

Offer for sale to staff, or sell or donate to local organisations.

Wood preservatives

See paints and solvents.

Pesticides

Avoid use of pesticides wherever possible. Store carefully and consult your supplier regarding disposal. **SEE SECTION 8.6**

WASTE BY DE

REFURBISHMENT

Carpets and other flooring material

Carpets can be reused by other schools, clubs and other organisations (although you need to check first whether it complies with fire regulations) and some carpet manufacturers will take back unwanted carpet for recycling. For all flooring materials it will depend on the material and the method of fixing as to whether it can be reused or recycled.

Furniture

Find out if there are any furniture recycling projects in your area that collect donated reusable items for refurbishment to pass on to low-income households, checking first that upholstered items conform to safety regulations. High quality items can be sold to staff or second-hand companies through auction houses or donated to local charities, schools and small businesses. Your local authority should be able to advise.

Ceramic or stone tiles

Tiles and ceramic bathroom fittings can be crushed and mixed with other materials to make paths or used as aggregate by the construction industry. Contact your local authority for information on possible avenues for disposal.